WHAT IS CLAIMED IS:

1. A method of manufacturing a semiconductor device, wherein a material having a tensile stress of 8 X $10^9$ dynes/cm$^2$ or more is formed in contact with a semiconductor that is formed on a substrate, whereby an impurity element in said semiconductor is gettered into said material.

2. A method of manufacturing a semiconductor device according to claim 1, wherein said material is formed by LPCVD within a temperature range of between 500 and 900°C.

3. A method of manufacturing a semiconductor device according to claim 1, wherein said material is formed by LPCVD within a pressure range of between 0.1 and 3 Torr.

4. A method of manufacturing a semiconductor device according to claim 1, wherein said material is formed by LPCVD with a gas containing chlorine as a material gas.

5. A method of manufacturing a semiconductor device according to claim 1, wherein said material is a silicon nitride film formed by LPCVD.

6. A method of manufacturing a semiconductor device according to claim 5, wherein a composition ratio of N/Si in said silicon nitride film is 1.2 to 1.4.

7. A method of manufacturing a semiconductor device, wherein a material formed by LPCVD within a temperature range of between 500 and 900°C is formed in contact with a

semiconductor that is formed on a substrate, whereby an impurity element in said semiconductor is gettered into said material.

8. A method of manufacturing a semiconductor device, wherein a material formed by LPCVD within a pressure range of between 0.1 and 3 Torr is formed in contact with a semiconductor that is formed on a substrate, whereby an impurity element in said semiconductor is gettered into said material.

9. A method of manufacturing a semiconductor device, wherein a material formed by LPCVD with a gas containing chlorine as a material gas is formed in contact with a semiconductor that is formed on a substrate, whereby an impurity element in said semiconductor is gettered into said material.

10. A method of manufacturing a semiconductor device, wherein a silicon nitride film having an N/Si composition ratio of between 1.2 and 1.4 is formed in contact with a semiconductor that is formed on a substrate, whereby an impurity element in said semiconductor is gettered into said silicon nitride film.

11. A method of manufacturing a semiconductor device, wherein a silicon nitride film formed by LPCVD is formed in contact with a semiconductor that is formed on a substrate, whereby an impurity element in said semiconductor is gettered into said silicon nitride film.

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12. A method of manufacturing a semiconductor device according to claim 11, wherein said silicon nitride film is formed within a temperature range of between 500 and 900°C.

13. A method of manufacturing a semiconductor device according to claim 11, wherein said silicon nitride film is formed within a pressure range of between 0.1 and 3 Torr.

14. A method of manufacturing a semiconductor device according to claim 11, wherein said silicon nitride film is formed with a gas containing chlorine as a material gas.

15. A method of manufacturing a semiconductor device according to claim 11, wherein the composition ratio of N/Si in said silicon nitride film is between 1.2 and 1.4.

16. A method of manufacturing a semiconductor device according to any one of claims 1 and 7 to 11, wherein said impurity element is a metallic element.

17. A method of manufacturing a semiconductor device according to any one of claims 1 and 7 to 11, wherein said impurity element is a metallic element which is an element selected from the group consisting of: nickel, iron, cobalt, ruthenium, rhodium, palladium, osmium, iridium, platinum, copper, and gold.

18. A method of manufacturing a semiconductor device according to any one of claims 1 and 7 to 11, wherein said semiconductor is a non-single crystal semiconductor film.

19. A method of manufacturing a semiconductor device according to any one of claims 1 and 7 to 11, wherein said semiconductor is a crystalline silicon film.

20. A method of manufacturing a semiconductor device according to claim 4 or 9, wherein the gas containing chlorine is a mixture gas that contains any one of $SiCl_4$, $SiH_2Cl_2$, $SiCl_3$, and $Si_2Cl_6$.

21. A method of manufacturing a semiconductor device, wherein after a material is formed in contact with a semiconductor that is formed on a substrate, heat treatment is performed to thereby set a tensile stress of said material to $8 \times 10^9$ dynes/cm$^2$ or more and at the same time an impurity element in said semiconductor is gettered into said material.

22. A method of manufacturing a semiconductor device according to claim 21, wherein the temperature of said heat treatment is 500 to 1100°C.

23. A method of manufacturing a semiconductor device according to claim 21 or 22, wherein said heat treatment is performed under an inert gas atmosphere.

24. A method of manufacturing a semiconductor device according to claim 23, wherein said inert gas is nitrogen.

25. A method of manufacturing a semiconductor device according to claim 21, wherein said heat treatment is performed under a pressure of 0.1 to 10 Torr.

26. A method of manufacturing a semiconductor device according to claim 21, wherein said material is a silicon nitride film, a silicon nitride oxide film, or a laminate film thereof.

27. A method of manufacturing a semiconductor device according to claim 21, wherein said material is formed by plasma CVD.

28. A method of manufacturing a semiconductor device according to claim 21, wherein said material is formed by sputtering.

29. A method of manufacturing a semiconductor device according to claim 26, wherein the composition ratio of N/Si in the silicon nitride film prior to said heat treatment is between 0.8 and 1.4.

30. A method of manufacturing a semiconductor device according to claim 26, wherein the composition ratio of N/Si in the silicon nitride film after said heat treatment is between 1.2 and 1.4.

31. A method of manufacturing a semiconductor device, wherein after a material is formed in contact with a semiconductor that is formed on a substrate, heat treatment is performed to thereby set a composition ratio of N/Si of said material to between 1.2 and 1.4 and at the same time an impurity element in said semiconductor is gettered into said material.

32. A method of manufacturing a semiconductor device according to claim 31, wherein said material is a silicon nitride film, a silicon nitride oxide film, or a laminate film thereof.

33. A method of manufacturing a semiconductor device, comprising the steps of:

intentionally introducing a metallic element for promoting crystallization of silicon into an amorphous semiconductor film;

crystallizing said amorphous semiconductor film by performing a first heat treatment to thereby obtain a crystalline semiconductor film; and

forming a silicon nitride film in contact with said crystalline semiconductor film after formation thereof and at the same time gettering said metallic element to said silicon nitride film, whereby the metallic element in said crystalline semiconductor film is removed or reduced.

34. A method of manufacturing a semiconductor device, comprising the steps of:

selectively introducing a metallic element for promoting crystallization of silicon into an amorphous semiconductor film;

crystallizing said amorphous semiconductor film by performing a first heat treatment to thereby obtain a crystalline semiconductor film; and

forming a silicon nitride film in contact with said crystalline semiconductor film after formation thereof and at the same time gettering said metallic element to said silicon nitride film, whereby the metallic element in said crystalline semiconductor film is removed or reduced.

35. A method of manufacturing a semiconductor device according to claim 33 or 34, wherein said silicon nitride film is formed by LPCVD.

36. A method of manufacturing a semiconductor device according to claim 33 or 34, wherein after the formation of said silicon nitride film, said silicon nitride film is removed.

37. A method of manufacturing a semiconductor device, comprising the steps of:

intentionally introducing a metallic element for promoting crystallization of silicon into an amorphous semiconductor film;

crystallizing said amorphous semiconductor film by performing a first heat treatment to thereby obtain a crystalline semiconductor film;

forming a silicon nitride film in contact with said crystalline semiconductor film after formation thereof; and

performing a second heat treatment to thereby getter said metallic element to said silicon nitride film, whereby the metallic element in said crystalline semiconductor film is removed or reduced.

38. A method of manufacturing a semiconductor device, comprising the steps of:

selectively introducing a metallic element for promoting crystallization of silicon into an amorphous semiconductor film;

crystallizing said amorphous semiconductor film by performing a first heat treatment to thereby obtain a crystalline semiconductor film;

forming a silicon nitride film in contact with said crystalline semiconductor film after formation thereof; and

performing a second heat treatment to thereby getter said metallic element to said silicon nitride film, whereby the metallic element in said crystalline semiconductor film is removed or reduced.

39. A method of manufacturing a semiconductor device, comprising the steps of:

intentionally introducing a metallic element for promoting crystallization of silicon into an amorphous semiconductor film;

crystallizing said amorphous semiconductor film by performing a first heat treatment to thereby obtain a crystalline semiconductor film;

forming a silicon oxide film, which has an opening portion, in contact with said crystalline semiconductor film after formation thereof;

forming a silicon nitride film in contact with said opening portion;

performing a second heat treatment to thereby getter said metallic element to said silicon nitride film, whereby the metallic element in said crystalline semiconductor film is removed or reduced; and

patterning the crystalline semiconductor film with said silicon oxide film as a mask.

40. A method of manufacturing a semiconductor device, comprising the steps of:

forming a silicon oxide film, which has an opening portion, in contact with an amorphous semiconductor film;

selectively introducing a metallic element for promoting crystallization of silicon to said amorphous semiconductor film with said silicon oxide film as a mask;

crystallizing said amorphous semiconductor film by performing a first heat treatment to thereby obtain a crystalline semiconductor film;

forming a silicon nitride film in contact with said opening portion;

performing a second heat treatment to thereby getter said metallic element to said silicon nitride film, whereby the metallic element in said crystalline semiconductor film is removed or reduced; and

patterning the crystalline semiconductor film with said silicon oxide film as a mask.

41. A method of manufacturing a semiconductor device according to any one of claims 37 to 40, wherein said silicon nitride film is removed after performing said second heat treatment.

42. A method of manufacturing a semiconductor device according to any one of claims 37 to 40, wherein said second heat treatment sets a tensile stress of said silicon nitride film to 8 X $10^9$ dynes/$cm^2$ or more.

43. A method of manufacturing a semiconductor device according to any one of claims 33, 34 and 37 to 40, wherein said metallic element is an element selected from the group consisting of: nickel, iron, cobalt, ruthenium, rhodium, palladium, osmium, iridium, platinum, copper, and gold.